

**COUNTY OF SAN LUIS OBISPO BOARD OF SUPERVISORS
AGENDA ITEM TRANSMITTAL**

(1) DEPARTMENT Sheriff - Coroner	(2) MEETING DATE 6/21/2016	(3) CONTACT/PHONE Ian Parkinson/781-4540	
(4) SUBJECT Request to transfer ownership of a 1982 Cessna Model 182R Fixed Wing Aircraft from San Bernardino County for use in search and rescue, emergency response and specialized transportation; authorize a corresponding budget adjustment in FC 136 - Sheriff Coroner to recognize the fair market value of the aircraft at \$111,000 and add \$79,075 of capital expense and offsetting revenue for refurbishment, for a total amount of \$190,075; amend the Fixed Asset List to include the aircraft; and authorize the Sheriff to sign the documents related to the transfer. All Districts.			
(5) RECOMMENDED ACTION It is recommended that your Board: <ol style="list-style-type: none"> 1. Accept and approve a 1982 Cessna 182R Fixed Wing Aircraft, Serial number 1826821 from San Bernardino County for search and rescue, emergency response and specialized transportation; 2. Authorize a corresponding budget adjustment in the amount of \$190,075, including \$111,000 being donated by San Bernardino County, Asset Forfeiture Trust Account funds in the amount of \$39,075; and accept a donation from the San Luis Obispo County Sheriff's Advisory Foundation in the amount of \$40,000 as the Financing Source and increase the Capital Outlay appropriation by \$190,075, to refurbish the Cessna Model to current standards (\$79,075) and record the fair market value as \$111,000 by a 4/5 vote; 3. Amend the Fixed Asset List in Fund Center 136 - Sheriff-Coroner to include the 1982 Cessna Model 182R Fixed Wing Aircraft; 4. Authorize the Sheriff-Coroner to sign any documents related to the transfer of the 1982 Cessna Model 182R Fixed Wing Aircraft. 			
(6) FUNDING SOURCE(S) Sheriff Advisory Foundation/Asset Forfeiture Trust Account	(7) CURRENT YEAR FINANCIAL IMPACT \$0.00	(8) ANNUAL FINANCIAL IMPACT \$60,582	(9) BUDGETED? No
(10) AGENDA PLACEMENT <input checked="" type="checkbox"/> Consent <input type="checkbox"/> Presentation <input type="checkbox"/> Hearing (Time Est. ____) <input type="checkbox"/> Board Business (Time Est. ____)			
(11) EXECUTED DOCUMENTS <input type="checkbox"/> Resolutions <input type="checkbox"/> Contracts <input type="checkbox"/> Ordinances <input checked="" type="checkbox"/> N/A			
(12) OUTLINE AGREEMENT REQUISITION NUMBER (OAR) N/A		(13) BUDGET ADJUSTMENT REQUIRED? BAR ID Number: 1617003 <input checked="" type="checkbox"/> 4/5 Vote Required <input type="checkbox"/> N/A	
(14) LOCATION MAP N/A	(15) BUSINESS IMPACT STATEMENT? No	(16) AGENDA ITEM HISTORY <input checked="" type="checkbox"/> N/A Date: _____	
(17) ADMINISTRATIVE OFFICE REVIEW Geoff O'Quest, Administrative Analyst			
(18) SUPERVISOR DISTRICT(S) All Districts			

County of San Luis Obispo



TO: Board of Supervisors

FROM: Sheriff - Coroner / Ian Parkinson/781-4540

DATE: 6/21/2016

SUBJECT: Request to transfer ownership of a 1982 Cessna Model 182R Fixed Wing Aircraft from San Bernardino County for use in search and rescue, emergency response and specialized transportation; authorize a corresponding budget adjustment in FC 136 - Sheriff Coroner to recognize the fair market value of the aircraft at \$111,000 and add \$79,075 of capital expense and offsetting revenue for refurbishment, for a total amount of \$190,075; amend the Fixed Asset List to include the aircraft; and authorize the Sheriff to sign the documents related to the transfer. All Districts.

RECOMMENDATION

It is recommended that your Board:

1. Accept and approve a 1982 Cessna 182R Fixed Wing Aircraft, Serial number 1826821 from San Bernardino County for search and rescue, emergency response and specialized transportation;
2. Authorize a corresponding budget adjustment in the amount of \$190,075, including \$111,000 being donated by San Bernardino County, Asset Forfeiture Trust Account funds in the amount of \$39,075; and accept a donation from the San Luis Obispo County Sheriff's Advisory Foundation in the amount of \$40,000 as the Financing Source and increase the Capital Outlay appropriation by \$190,075, to refurbish the Cessna Model to current standards (\$79,075) and record the fair market value as \$111,000 by a 4/5 vote;
3. Amend the Fixed Asset List in Fund Center 136 - Sheriff-Coroner to include the 1982 Cessna Model 182R Fixed Wing Aircraft;
4. Authorize the Sheriff-Coroner to sign any documents related to the transfer of the 1982 Cessna Model 182R Fixed Wing Aircraft.

DISCUSSION

The San Luis Obispo Sheriff's Office has a unique opportunity to add a mission appropriate aircraft to their vehicle fleet that will improve the capabilities of the current volunteer Aero Squadron. The addition of this aircraft at minimal costs to the County would greatly enhance the Sheriff's Office capabilities for search and rescue missions as well as law enforcement detection and deterrence. The Sheriff Office currently maintains an Aero Squadron consisting of all volunteer FFA-licensed pilots and non-pilot trained observers. The Squadron primarily provides airborne search and rescue support and specialized transportation functions. Squadron pilots utilize their privately owned aircraft for missions and are reimbursed by the Sheriff's Office for aviation fuel and oil used during an assigned mission. There are currently 28 active volunteer members of the Aero Squadron (pilots and observers) utilizing several different models of fixed wing aircraft. Examples of Aero Squadron missions within San Luis Obispo County include:

- Searching for missing or overdue individuals, missing either on foot or in vehicles.
- Providing airborne communication relay for remote search and rescue operations.
- Searching for missing or overdue vessels or aircraft.
- Searching for illegal vessels and vehicles associated with coastal smuggling operations.
- Transportation of County employees throughout California for important work-related business.
- Airborne support of ground law enforcement activity.

The Sheriff's Office is responsible for search and rescue needs within the unincorporated areas of San Luis Obispo County, as well as providing services to the incorporated cities upon request. In the last two years, Search and Rescue was called out approximately 32 times. The Sheriff's Office is occasionally requested to assist large or extended search and rescue operations out of county as well. The Sheriff's Office estimates that of the 32 calls received, the plane could have been utilized on approximately 80% of those calls.

Although the Aero Squadron personnel are well trained experienced pilots and observers, they are limited in their effectiveness due to the limitations of their privately owned aircraft, which vary in capabilities and are primarily equipped for recreational flying. Aircraft dedicated to search and rescue and law enforcement missions are specially outfitted with rotating seats and large windows for an observer, as well as specialized equipment such as a fixed mounted Gyrocam (360 degree camera system with long range zoom and night vision capabilities). Without these specialized features, the aircraft are not nearly as effective for search and rescue and law enforcement purposes. The cost of a Gyrocam is approximately three to five hundred thousand dollars. Currently, when the Sheriff's Office is in need of law enforcement equipped aircraft, including at night, they must request the local California Highway Patrol (CHP) aircraft be deployed, which is dependent on CHP availability.

Availability of San Bernardino County Aircraft

In early 2015, Sheriff Parkinson learned that the San Bernardino County Sheriff's Office was in the process of replacing one of their fixed wing aircraft with a newer model. The San Bernardino County Sheriff's Office has a dedicated and robust Aviation Division consisting of full-time pilots and support personnel operating both fixed wing aircraft and helicopters. San Luis Obispo County Sheriff's Office staff met with San Bernardino County Sheriff's Office Aviation Division personnel and learned the following about the aircraft being replaced. The fixed wing aircraft is a 1982 Cessna 182 Skylane II, tail no. N4765E. It is a high wing, single propeller aircraft originally designed to hold four people. The San Bernardino County Sheriff's Office purchased the aircraft in 2001 with funds provided by the Federal HIDTA program (High Intensity Drug Trafficking Areas). The HIDTA program was created by Congress with the Anti-Drug Abuse Act of 1988 to provide assistance to Federal, state, local, and tribal law enforcement agencies operating in areas determined to be critical drug-trafficking regions of the United States. San Bernardino County is situated in a HIDTA region. The plane was appraised and valued at \$111, 000.00, excluding the value of the attached Gyrocam.

The Cessna aircraft has been modified for search and rescue and law enforcement use. The standard rear seats have been removed and replaced with a single swivel seat for the observer. The left side rear window was replaced with a large vertical window for observation. A Gyrocam system has been mounted on the left side of the aircraft just behind the observer window. The Gyrocam system has night vision capabilities and is controlled and viewed on a screen by the observer using a handheld control device equipped with a viewing screen.

The San Bernardino County Sheriff's Office has offered the Cessna to the Sheriff's Office free of charge, which is consistent with federal requirements regarding property purchased with federal HIDTA funds. The San Luis Obispo County Sheriff's Office would like to take ownership of the aircraft and utilize it in its Aero Squadron program. The aircraft would be used by the existing volunteer pilots and observers so no additional county personnel would be needed.

Acquisition of the aircraft would allow the Sheriff's Office to significantly expand and improve its air support program in the following ways:

1. Utilizing an aircraft specially equipped for observation, including the Gyrocam system, will greatly improve the ability to locate people, vehicles, vessels, and aircraft that are missing, overdue, or wanted by law enforcement.
2. The aircraft would be available for use at night using the night vision feature of the camera.
3. Availability of immediate air support would be improved since the Cessna would be solely dedicated for use by the Sheriff's Office.
4. The aircraft would be used for mission-specific patrol of the most rural areas of the county when response time by Deputies may be extended.
5. The pilots and observers would utilize one model of aircraft most of the time, rather than using their own private airplanes of different models and capabilities. This would allow interchangeability of pilots and observers with greater efficiency.

All of the Sheriff's Office's in the nearby counties (as well as many more counties in California) have dedicated air support units comprised of fixed wing aircraft, helicopters, or both. These counties include Santa Barbara, Ventura, Kern, Fresno and Monterey.

Condition of Aircraft

Staff worked with representatives from the San Bernardino County Sheriff's Office and Santa Monica Aviation to assess the condition of the aircraft, including one-time and ongoing maintenance needs. The aircraft has been maintained by Santa Monica Aviation since being owned by San Bernardino County Sheriff's Office and staff has access to all service records. The aircraft has been very well maintained by the San Bernardino County Sheriff's Office and all required maintenance has been performed each year by in-house staff or Santa Monica Aviation (depending on the type of maintenance required). The previous engine was replaced with a factory rebuilt engine in 2004. There are currently approximately 1,820 hours on the existing engine. At the 2,000 hour mark, the engine will need to be replaced or overhauled. Staff recommends replacement with a factory rebuilt engine. The aircraft is due for its annual inspection and static system certification (certification of the altimeter and transponder avionics) in May 2016. A required propeller overhaul is also due, which would be performed at the same time as the annual inspection.

The Gyrocam camera functions well for daytime use but the night vision capability is not working and will require repair by Lockheed Martin in Florida (Lockheed Martin now owns Gyrocam and continues to support the model mounted on the Cessna 182).

The Garmin model GTX330 transponder in the aircraft is fully functioning; however an FAA requirement will necessitate the replacement of the transponder. The FAA is requiring all aircraft transponders to be Automatic Dependent Surveillance–Broadcast (ADS-B) compliant by January 1, 2020. Rather than utilizing ground radar to track the position of aircraft, the ADS-B system utilizes the global satellite network to precisely locate aircraft in space and time and automatically transmit tracking data to controllers and other aircraft. It is a safer and more accurate system that provides near real time data and utilizes signals that do not degrade with distance or terrain. Because it is a safer system, the Sheriff's office plans on upgrading the transponder and the avionics in FY 2016-17 rather than waiting for the required deadline.

The paint on the aircraft is serviceable. The interior of the aircraft is worn and replacement of the seat upholstery, floor covering, door panels and headliner is desirable.

All of these repairs and/or replacement items will be completed with funds from the Sheriff's Advisory Foundation and Sheriff's Asset Forfeiture with no General Fund dollars. It is the intent of the Sheriff to have the aircraft placed into service after it has been refurbished to current standards.

Maintenance and Operational Requirements

The aircraft requires the following regular maintenance:

- Inspection and oil change every 50 flight hours.
- Full inspection every 100 hours or one year, whichever comes first.
- Propeller overhaul every five years.
- Engine overhaul or replacement every 2000 flight hours.
- Avionics maintenance as needed.

Ongoing operation of the aircraft utilizes fuel, oil and other consumables as needed. The aircraft will be stored in a closed hanger at the San Luis Obispo Airport.

The tables below list the one-time and on-going maintenance costs associated with owning the aircraft, along with an estimated cost per hour flight.

Pilot/Observer Training

The Sheriff's Office will certify all of the existing volunteer Aero Squadron pilots and observers to operate the Cessna and Gyrocam. The certification will be conducted by certified instructors. After the initial training, the pilots will be responsible for maintaining their own certifications and meeting annual flight physical requirements. Volunteer pilots are also responsible for carrying their own personal liability insurance.

OTHER AGENCY INVOLVEMENT/IMPACT

The San Luis Obispo County Sheriff's Office has coordinated their efforts with San Bernardino County Sheriff's Office as well as the Auditor-Controller-Treasurer-Tax Collector and the San Luis Obispo County Airport.

FINANCIAL CONSIDERATIONS

Initial costs of \$79,075 will be paid for by funds from the San Luis Obispo County Sheriff's Advisory Foundation (\$40,000) and Asset Forfeiture Trust Account (\$39,075) and will have no impact to the General Fund. This includes costs associated with taking ownership of the aircraft, the Gyrocamera repair, interior improvements, engine replacement, and the avionics replacement. These repairs will be completed during Fiscal Year 2016-17. Any ongoing operation and maintenance costs will be included in the Sheriff's Office budget.

Since the 1982 Cessna model 182R Fixed Wing Aircraft is being donated by San Bernardino County, the Sheriff's Office will increase the fixed asset list by at the appraised value of \$111,000 plus the additional cost of \$79,075 to refurbish for a total value of \$190,075.

Listed below are three tables associated with the cost of the 1982 Cessna model 182R Fixed Wing Aircraft.

Table one (1) below represents the breakdown of initial costs of the plane:

DESCRIPTION	COST
Title transfer & initial registration,	\$200
Gyrocam Repair	\$10,000
2016 Annual Inspection	\$5,000
Propeller overhaul	\$4,500
Static System Certification	\$375
Interior upholstery, headliner & flooring replacement	\$11,000
Pilot & observer training	\$1,500
Transponder replacement	\$6,500
Factory rebuilt engine	\$40,000
Total Initial Costs	\$79,075

Table two (2) below represents the annual costs of the plane:

DESCRIPTION	COST
Operating cost per year @ 200 hours per year @ \$235.00 per hr. (see table 3)*	\$47,000
Annual subscription for Garmen GPS	\$350
Insurance	\$3,480
Storage	\$4,752
Other misc. costs	\$5,000
Total Annual Costs	\$60,582

*Based on the history of prior calls and use of the Aero Squadron, the Sheriff's Office has estimated that it will not exceed 200 hours of flight time per year.

Table three (3) below represents the estimated cost per flight hour:

DESCRIPTION	COST
Engine Maintenance (Approximately 1.2 hours maintenance per flight hour @ \$98 per hour)	\$118
Avionics Maintenance	\$4
Parts	\$25
Fuel & Oil	\$88
**Total Estimated Operating Costs Per Flight Hour	\$235

**Estimated costs are based on actuals from Santa Monica Aviation.

RESULTS

Approval of this request is expected to improve the ability to locate missing people, over- all safety and efficiency/reliability. This is mainly due to having a plane that is furnished with proper equipment and availability. The Sheriff's Office will be better equipped to meet the increasing service demands which are related to the increased population, thus meet the County's goal of a safe and livable community.

ATTACHMENTS

1. San Bernardino Board of Supervisors Staff Report, May 24, 2016: Donation of Aircraft